PAVEMENT MARKERS 857.04

856.05. METHOD OF MEASUREMENT.

Traffic stripe will be measured by the linear foot (meter) of 4 inch (100mm) wide traffic stripe material actually placed or the equivalent 100 mm stripe when narrower or wider stripe is required. Where arrows and words are placed, they will be measured by each unit. Pavement markers will be measured by each unit installed on the project. Costs for restoration of pavement markers, restriping, and maintenance of pavement markings shall be included in the price bid for the initial installation.

856.06. BASIS OF PAYMENT.

Traffic stripe, measured as provided above, will be paid for at the contract unit price as follows:

(A)	CONSTRUCTION TRAFFIC STRIPE (PAINT)	LINEAR FOOT (METER)
(B)	CONSTRUCTION TRAFFIC STRIPE (PAINT)	EACH
(C)	REMOVABLE PAVEMENT MARKING TAPE	LINEAR FOOT (METER)
(D)	REMOVABLE PAVEMENT MARKING TAPE	EACH
(E)	NONREMOVABLE PAVEMENT MARKING TAPE	LINEAR FOOT (METER)
(F)	NONREMOVABLE PAVEMENT MARKING TAPE	EACH
(G)	CONSTRUCTION ZONE PAVEMENT MARKERS	EACH

Such payment shall be full compensation for road surface preparation, disposal of waste materials, and for all materials, labor, tools, equipment and incidentals to complete the work as specified.

SECTION 857 PAVEMENT MARKERS

857.01. DESCRIPTION.

This work shall consist of furnishing and installing pavement markers of the class and type specified on the Plans as directed by the Engineer, and in conformity with these Specifications.

857.02. MATERIALS.

Materials shall meet the requirements of Section 736.

857.03. EQUIPMENT.

The equipment used for mixing and application of epoxy resin adhesive shall meet the requirements of AASHTO M 237.

857.04. CONSTRUCTION METHODS.

The portions of the highway surface to which the marker is to be attached shall be free from dirt, curing compound, grease, oil, moisture, loose or unsound pavement, or any other material which might affect the attachment of the marker to the pavement. On portland cement concrete pavement, prepare the area to which the marker is to be affixed by sand blasting or wire buffing immediately prior to placement of the marker.

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Follow the installation procedure recommended by the manufacturer of the marker. Firmly affix the markers to the surface in such a manner that they will not be displaced under traffic.

When installing the markers, make the color of the marker housing compatible with the color of the traffic stripes they are to supplement or replace.

If any pavement markings fail to provide a uniform appearance or fail to be clearly visible during the day or night, correct them in a manner acceptable to the engineer and at no additional cost to the Department.

Place retroreflective pavement markers at the designated location in such a way that the color of the reflected light is in accordance with the Plans, details, or as directed by the Engineer.

If the road is open to public travel during the progress of work, operate the equipment and store materials and supplies in such a manner as to cause a minimum of hazard and inconvenience to the traveling public.

Any damage to the pavement or other facilities caused by the operation of the equipment shall be repaired at no additional expense to the Department.

857.05. METHOD OF MEASUREMENT.

Pavement markers installed as directed and accepted will be measured by counting separately the number of various classes and types of markers.

Pavement markers shall be divided into classes and types for measurement and payment as follows:

Class A - Retroreflective

Type 1 - Monodirectional

Type 2 - Bi-directional

Class B - Nonretroreflective ceramic

Yellow

White

Class C - Retroreflective, all weather

Type 1 - Monodirectional

Type 2 - Bi-directional

On retroreflective markers, the color of the marker body other than the reflective face shall be neutral or match the reflector face. On bi-directional markers, the color of the marker body shall be neutral or split to match the reflective. Bi-directional markers shall comply with color code: A = Crystal/Crystal, B=Amber, C=Crystal/Red and D=Amber/Amber.

The reflector unit for the Class C markers shall be affixed to the casting with an adhesive material which is molded to and is an integral part of the reflector unit. The section of the casting where the reflector unit is to be attached shall be brushed with a coat of primer furnished by the manufacturer immediately prior to attaching the reflector unit. The manufacturer's recommendations shall be closely followed.

The surfaces of the casting shall be free of rust, scale, dirt, oil, grease, or other foreign material which might adversely affect the bond of the adhesive used to affix the marker to the pavement surface.

857.06. BASIS OF PAYMENT.

Accepted pavement markers, measured as provided above, will be paid for at the contract unit price as follows:

- (A) PAVEMENT MARKERS EACH
- (B) REMOVE & RESET PAVEMENT MARKERSEACH

Such payment shall be full compensation for furnishing all materials, preparation and installation and for all labor, equipment, tools and incidentals necessary to complete the work.

SECTION 858 RAILWAY-HIGHWAY CROSSBUCK SIGNS

858.01. DESCRIPTION.

This work shall consist of furnishing and erecting railway-highway crossbuck signs with posts constructed in accordance with the Plans and these Specifications at the locations shown on the Plans or as established by the Engineer.

858.02. MATERIALS.

The materials used in this work shall meet the requirements specified on the Plans. A type D certification shall be furnished in accordance with subsection 106.04.

858.04. CONSTRUCTION METHODS.

- (a) **Sign Fabrication**. Fabrication of the signs and posts shall be as specified on the Plans.
- (b) Setting Signs. Set the sign posts in holes dug in thoroughly compacted soil with the top of the sign set to the elevation shown on the Plans or as designated by the Engineer. The sign shall face oncoming traffic and shall be so adjusted as to provide maximum effectiveness under local conditions. Backfill the holes as shown on the Plans with Class A concrete which shall be thoroughly rodded to obtain density. Provide for the sign to be temporarily supported in a plumb position for a minimum of 24 hours before the supports are removed.
- (c) **Location of Signs.** Locate crossbuck signs with respect to the roadway pavement or shoulder in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways or as established by the Engineer.

858.05. METHOD OF MEASUREMENT.

Railway-highway crossbuck signs will be measured by the unit for each sign installed including post and footing.